

REMARKS/ARGUMENTS

Claims 1-43 are pending in the application.

Claim Rejections

Claims 1-43 stand rejected under 35 U.S.C. 102(e) as being anticipated by Walker et al. (USPN 6,138,171) (hereinafter “Walker”).

Claim 1 recites:

A method comprising:
receiving a plurality of events;
applying the plurality of events to a correlation function, wherein the correlation function is implemented as a state machine and is configured to correlate the plurality of events; and
generating a specific event if the correlation function is satisfied by the plurality of events.

Thus, the method of Claim 1 employs a correlation function that is configured to correlate events. Particularly, the method applies the events to the correlation function and generates a specific event if the correlation function is satisfied by the received events. As defined in the Applicant’s application, the correlation function recited in Claim 1 may include:

An example correlation function that correlates two events generates an email message when two different server crashes occur within five second of one another. (Applicant’s application, page 16, lines 17-19).

Walker does not disclose or suggest the use of such a correlation function to process events. In contrast, Walker merely describes a generic software state machine for implementing a software application in an object oriented

environment. (See Walker, Abstract). Regarding the software state machine's event processing capabilities, Walker states:

In software state machine 10, the responsibilities assigned to event functions are limited to processing the received event and determining if a logical state change is required. (Walker, col. 7, lines 38-41).

The software state machine described by Walker is configured to process each received event by either changing or not changing a logical state. However, nothing in Walker discloses or suggests that the software state machine is capable of correlating multiple events. Furthermore, Walker also fails to disclose or suggest generating a specific event if the correlation function is satisfied by the events. Thus, the generic software state machine and its related components described by Walker are not equivalent to the correlation function recited in Claim 1.

The Office Action argues that

Walker teaches applying events to a correlation function, i.e. a state machine capable of handling the event, and if the correlation function is satisfied, i.e. if a logical state change is required or the cited state machine does not handle the event, generating and sending a specific event, i.e. communicating with another state machine via an internal event. (Office Action, page 10).

As discussed above, the state machine described by Walker can process an event. But processing an event is not equivalent to correlating multiple events. Also, Walker describes that two state machines can communicate with one another. However, the communications between state machines are used for

routing an event to a state machine that has been delegated the responsibility to process it. (See Walker, col. 7, lines 47-62). This routed event is merely an existing event and not another specific event that is generated if the correlation function is satisfied by the received event. Thus, Walker fails to disclose or suggest the subject matter recited in Claim 1.

For at least the reasons stated above, Applicant respectfully submits that Claim 1 is not anticipated by Walker and is allowable. Given that Claims 2-10 depend from Claim 1, Claims 2-10 are also allowable for at least the same reasons.

Claim 11 recites:

A method comprising:
receiving a plurality of events;
receiving a plurality of data elements;
identifying a plurality of correlation functions configured to correlate the plurality of events and the plurality of data elements;
applying the plurality of events and the plurality of data elements to the plurality of correlation functions; and
generating a specific event if at least one of the plurality of correlation functions is satisfied.

As defined in the Applicant's application, data elements may include "the available disk space, the current memory utilization, and the number of users logged into particular servers". (Applicant's application, page 16, lines 15-17). Also, according to the definition in the Applicant's application, the correlation function recited in Claim 11 may include:

An example correlation function that correlates an event with data generates an event when a server crashes and the available storage space on the server's hard drive is less than five megabytes. Another example correlation function pages an administrator when the available storage

space on a server's hard disk stays below ten megabytes for at least five minutes. (Applicant's application, page 16, lines 19-23).

As discussed above, although the Walker reference describes the processing of an event, the reference does not disclose or suggest a method that uses a correlation function configured to correlate events and that generates a specific event if the correlation function is satisfied by the events. Furthermore, Walker also fails to disclose or suggest a correlation function that correlates both events and data elements. For at least the reasons stated above, Applicant respectfully submits that Claim 11 is not anticipated by Walker and is allowable. Given that Claims 12-19 depend from Claim 11, Claims 12-19 are also allowable for at least the same reasons.

Claim 20 recites:

A method comprising:
identifying a schema for creating state machines, the state machines to correlate at least two events;
creating an instance of a particular state machine;
defining transitions for the particular state machine by subscribing to at least one event; and
applying an update consumer to the particular state machine to update the state of the particular state machine.

As discussed above, Walker does not disclose or suggest a correlation function configured to correlate events where the correlation function is implemented as a state machine. Walker also fails to disclose identifying a schema for creating such a state machine.

The Office Action suggests that Walker describes the use of a configuration file. (Office Action, page 6). This configuration file is merely used to specify and

define objects. But the configuration file is not a schema for creating state machines to correlate events, as recited in Claim 11. The Office Action also suggests that Walker describes that a programmer can modify the configuration file. (Office Action, page 6). According to Claim 20, the state of the particular state machine is updated by “applying an update consumer to the particular state machine”. However, the method in Claim 20 does not require a programmer to modify a file. Thus, Walker fails to disclose or suggest the subject matter recited in Claim 20.

For at least the reasons stated above, Applicant respectfully submits that Claim 20 is not anticipated by Walker and is allowable. Given that Claims 21-27 depend from Claim 20, Claims 21-27 are also allowable for at least the same reasons.

Claim 28 recites:

An apparatus comprising:
a plurality of event consumers; and
an event correlator coupled to the plurality of event consumers, the event correlator to receive events from at least one event source and to receive data elements from at least one data source, the event correlator further to receive at least one correlation function configured to correlate events and data elements and to apply the received events and the received data elements to the correlation function, wherein the event correlator generates a specific event if the received events and the received data satisfy the correlation function.

As discussed above, Walker does not disclose using a correlation function configured to correlate events and data elements and generating a specific event if the received events and the received data satisfy the correlation function.

Accordingly, Walker also fails to disclose the event correlator of Claim 28.

Applicant respectfully submits that Claim 28 is not anticipated by Walker and is allowable for at least the reasons stated above. Given that Claims 29-34 depend from Claim 28, Claims 29-34 are also allowable for at least the same reasons.

Claim 35 recites:

One or more computer-readable media having stored thereon a computer program that, when executed by one or more processors, causes the one or more processors to:

- receive a plurality of events;
- identify a plurality of correlation functions configured to correlate the plurality of events;
- apply the plurality of events to the plurality of correlation functions to determine whether any of the plurality of correlation functions are satisfied by the plurality of events; and
- generate a specific event if one of the plurality of correlation functions is satisfied by the plurality of events.

As discussed above, Walker does not disclose using a correlation function configured to correlate events and generating a specific event if the events satisfy the correlation function. Thus, for at least the reasons stated above, Applicant respectfully submits that Claim 35 is not anticipated by Walker and is allowable. Given that Claims 36-39 depend from Claim 35, Claims 36-39 are also allowable for at least the same reasons.

Claim 40 recites:

A method comprising:
receiving events from event providers;
correlating the events using a function; and
if the events are correlated,
generating an additional event; and
sending the additional event to an event consumer.

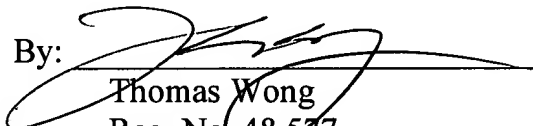
As discussed above, Walker discloses a state machine that is capable of processing an event. However, Walker fails to disclose correlating multiple received events and generating an additional event if the received events are correlated. Accordingly, for at least the reasons stated above, Applicant respectfully submits that Claim 40 is not anticipated by Walker and is allowable. Given that Claims 41-43 depend from Claim 40, Claims 41-43 are also allowable for at least the same reasons.

Conclusion

Claims 1-43 are in condition for allowance. Applicant respectfully requests the issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

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